BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Redesign and Upgrading of Existing Musicle fountain Interfaced With Multimedia based laser And Video Projection on Aqua Screen At J.P Park Ward No 17 Under package -2019-20 RRN-DIV-(08). Annexure-2 Sl No.754

Sl. No.	Description of work	Amount	Remarks
1	New pond	6737887.32	
2	Control Room & Borewell	1113919.00	
3	Setting up of Multimedia Laser & Musical Dancing Fountain and Water Screen	50728460.00	
4	jp park railings	2573686.00	
5	Gallary	22455931.31	
	TOTAL	**83609883.64**	
	TP 5 %	4180494.18	
	GST 12 %	10534845.34	
13	PMC 1%	836098.84	
14	PREPARATION OF DPR 1%	836098.84	
	Miscellenoius	**2579.17**	
	GRAND TOTAL	**100000000.00**	

Assistant Engineer
Ward no 17

Assistant Executive Engineer
Yashanthapura Subdivision

Executive Engineer
Raja Rajeshwari Division

45

02/03/2022

10,00,00,000/- (Ten crore only)

TECHNICAL SANCTION

Rs: 8 3 6 0 9 8 8 3 Eight Crore thirty six Lakhs nine thousand Eight hundred Eighty three and Paise Sixty four only is accorded under the head: P - 3744

By CE(R.R.N.) P. N. 08-09

Registered as CE (R.R.N) No: 21/21-22 subject to conditions contained in enclosed memo No: 21/21-22 Dated 24/08/21

TA.

CE (R.R.N.)

BRUHATH BANGALORE MAHANAGARA PALIKE

Est : 01 : **Name of Work: Redesign and Upgrading of Existing Musicle fountain Interfaced With Multimedia based laser And Video Projection on Aqua Screen At J.P Park Ward No 17 Under package -2019-20 RRN-DIV-(08). Annexure-2 Sl No.754**

Sl No	Description of work	No	Dimensions L	B	D	Quantity	Rate	Amount
	Control Room							
1	Earth work in surface excavation in ordinary soil for levelling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.50m. excavated surface levelled and neatly dressed , disposed earth to be levelled after breaking of clods and neatly dressed as per specifications.(P.No.5, I.No.2.1)							
	Site clearance	1	1	5.00	6.00	0.45	13.50	
						Total	13.50	**268.92** Cum	**3630.42**
	Basic Rate		249.00					
	A W @ 8%		19.92					
	Total		**268.92**					
2	Earth work excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches, 1.5m and above in width, in hard soil, exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with all lead upto 50m after breaking of clods complete as per specifications.(P.No.5, I.No.2.4)							
	Columns Found	1	4	2.00	2.00	1.50	24.00	
	Below Plinth	1	2	3.20	1.00	1.00	6.40	
		1	2	4.80	1.00	1.00	9.60	
						Total	40.00	**305.64** Cum	**12225.60**
	Basic Rate		449.00					
	A W @ 8%		22.64					
	Total		**305.64**					
3	KSRB-3.2: Providing and injecting chemical emulsion for Pre- constructional Anti-Termite Treatment, creating continuous chemical barrier under and around the column pits, walls, trenches, basement excavation, top surface of the plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits, with chloropyriphos emulsifiable concentrates of 20% concentration, including cost of chemical, diluting in water to one percent concentration, labour, HOM of equipments, complete as per specifications. (Plinth area of the building at ground floor only shall be measured) Specification No. KBS : 3.2.6 / 3.2.7 (P.No.8,I.No.3.2)							
		1	1	4.80	3.20		15.36	
						Total	15.36	**114.48** Cum	**1758.41**
	Basic Rate		106.00					
	A W @ 8%		8.48					
	Total		**114.48**					
4	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85 cum and fine aggregates @ 0.57 cum machine mixed, concrete laid in layers not exceeding 15cms thick well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete. (P.No.12 I.No.4.3)							
	Columns Found	1	4	2.00	2.00	0.15	2.40	
	Plinth beam	1	2	4.80	0.20	0.15	0.29	
		1	2	3.20	0.20	0.15	0.19	
						Total	2.88	**5725.83** Cum	**16490.38**
	Basic Rate		5301.69					
	A W @ 8%		424.14					
	Total		**5725.83**					
5	Providing and constructing granite/ trap/basalt size stone masonry in foundation in CM 1:6 stone hammed dressed in courses not less than 20cms high, bond stones at two m. apart in each course including cost of materials labour, curing etc., complete as per specifications. (P.No.23, I.No. 5.6)							
	Alround Found	1	2	4.80	0.60	0.40	2.30	
		1	2	3.20	0.60	0.40	1.54	
	Deductions							
	Column	-1	4	0.60	0.60	0.40	-0.58	
						Total	3.26	**4963.68**	**16201.45**

	Basic Rate		4596.00					**Cum**	
	A W @ 8%		367.68						
	Total		**4963.68**						
6	Providing and constructing granite/trap/basalt/size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15cms high, bond stones at two m. apart in each course including cost of materials, labhour, curing complete as per specifications.(P.No.23, I.No.5.9)								
	Alround Found	1	2	4.80	0.45	0.40	1.73		
		1	2	3.20	0.45	0.40	1.15		
	Deductions								
	Column	-1	4	0.60	0.45	0.40	-0.43		
						Total	2.45	**5921.64**	**14496.17**
	Basic Rate		5483.00					**Cum**	
	A W @ 8%		438.64						
	Total		**5921.64**						
7	KSRB 4.2.7 : Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70cum and fine aggregtes @ 0.47cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintles and beams retaining walls, return walls, walls (any thickness) including attached pilasters, columns, ,pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6 (PWD -SR 2016-17, P-8, I-4.12)								
	Footing	1	4	1.80	1.80	0.60	7.78		
	ColumUpto Plinth	1	4	0.20	0.60	1.20	0.58		
	Upto Roof	1	4	0.20	0.60	3.00	1.44		
	Lintel	1	2	4.80	0.20	0.20	0.38		
		1	2	3.20	0.20	0.20	0.26		
	Roof	1	1	4.80	3.20	0.15	2.30		
	Plinth beam								
		1	2	4.80	0.20	0.45	0.86		
		1	2	3.20	0.20	0.45	0.58		
	Roof Beam	1	2	4.80	0.20	0.45	0.86		
		1	2	3.20	0.20	0.45	0.58		
						Total	15.62	**6935.97**	**108312.13**
	Basic Rate		6422.20					**Cum**	
	A W @ 8%		513.78						
	Total		**6935.97**						
8	Providing and removing centering, shuttering, strutting, propping etc., and removal form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of materials, labhour complete as per specification.(P.No.15,I.No.4.31)								
	Columns Found	4	4	1.80		0.60	17.28		
	Upto Plinth	4	2	0.20		1.20	1.92		
		4	2	0.60		1.20	5.76		
	Upto Roof	4	2	0.20		3.00	4.80		
		4	2	0.60		3.00	14.40		
	Lintel	2	2	4.80		0.20	3.84		
		1	2	4.80	0.20		1.92		
		2	9	3.20		0.20	11.52		
		1	9	3.20	0.20		5.76		
	Plinth beam								
		2	9	4.80		0.45	38.88		
		2	3	3.20		0.45	8.64		
						Total	114.72	**386.64**	**44355.34**
	Basic Rate		358.00					**Sqm**	
	A W @ 8%		28.64						
	Total		**386.64**						
9	KSRB 4-6.3 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness above 200 mm including cost of all materials, labour complete as per Specification. Specification No. KBS 4.6.2(P.No.15,I.No.4.30)								
	Roof	1	1	4.80	3.20		15.36		

						Total	15.36	**475.20**	**7299.07**
	Basic Rate		440.00					**Sqm**	
	A W @ 8%		35.20						
	Total		**475.20**						
10	Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wiere and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials labour HOM of machinery complete (P.No.17, I No. 4.46.2)								
	Columns,PB, Slab and Lintels 120Kg/cum		15.62	0.12			1.87		
						Total	1.87	**84247.56**	**157873.19**
	Basic Rate		78007.00					**Tonne**	
	A W @ 8%		6240.56						
	Total		**84247.56**						
11	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4.(P.No.25, I.No.5.26.1).								
	Walls	1	2	4.80		2.75	26.40		
		1	2	3.20		2.75	17.60		
	Parapet Wall	1	1	16.00		1.00	16.00		
						Sqm	60.00		
	Deductions								
	Door	-1	1	0.90		2.10	-1.89		
	W	-1	1	1.50		1.20	-1.80		
						Total	56.31	**993.80**	**55961.01**
	Basic Rate		920.19					**Sqm**	
	A W @ 8%		73.61						
	Total		**993.80**						
12	Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to ceiling including rounding off corners wherever required smooth rendering,: providing and removing scaffolding, including cost of materials,labhour, curing complete as per specifications.(P.No.114, I.No.15.21)								
	Ceiling	1	1	4.80	3.20		15.36		
						Total	15.36	**282.11**	**4333.18**
	Basic Rate		261.21					**Sqm**	
	A W @ 8%		20.90						
	Total		**282.11**						
13	Providing 18mm thick cement plaster in single coat with cement mortor 1:4, to brick masonry including rounding off corners wherver required smooth rendering,: Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.(internal)(P.No.113, I.No.15.16)								
	Out Side Wall	1	2	4.40		3.35	29.48		
		1	2	2.80		3.35	18.76		
						Sqm	48.24		
	Deductions								
	Door	-1	1	0.90		2.10	-1.89		
	W	-1	1	1.50		1.20	-1.80		
							-3.69		
						Total	44.55	**289.07**	**12878.02**
	Basic Rate		267.66					**Sqm**	
	A W @ 8%		21.41						
	Total		**289.07**						
14	Providing 18mm thick cement plaster in single coat with cement mortar 1:3 to brick masonry including rounding off corners wherever required smooth rendering,: providing and removing scaffolding, including cost of materials,labhour, curing complete as per specifications.(P.No.113, I.No.15.15)								
	Out Side Wall	1	2	4.80		3.35	32.16		
		1	2	3.20		3.35	21.44		
	Parapet Wall	1	1	16.00		1.00	16.00		
						Sqm	53.60		
	Deductions								

	Door	-1	1	0.90		2.10	-1.89		
	W	-1	1	1.50		1.20	-1.80		
							-3.69		
						Total	49.91	**307.67**	**15355.57**
								Sqm	
	Basic Rate		284.88						
	A W @ 8%		22.79						
	Total		**307.67**						

15 KSRB15-7 : Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications. (PWD -SZB-SR 2016-17, P-115, I-15.33)

	Inside Qty Ceiling +wall						15.36		
							44.55		
						Total	59.91	**34.56**	**2070.49**
								Sqm	
	Basic Rate		32.00						
	A W @ 8%		2.56						
	Total		**34.56**						

16 Providing and laying flooring using prepolished, water cut/gang saw 19mm thick granite laid over bed of 20mm thick 1:4 cm & jointed with neat cement slurry mixed with pigment to mach shade of granite slabs including laying POP on finished surface and cleaning the surface, including the cost of all materials and labours etc., complete as per specifications. do- using silver grey granite / Multy Red / Ruby Red / Black / Hassan Green Granite of width not less than 1200mm (PWD -SZB-SR 2016-17, P-109, I-14.47.1)

	Control Room	1	1	4.40	2.80		12.32		
		1	2	4.40		0.10	0.88		
		1	2	2.80		0.10	0.56		
						Total	13.76	**2958.12**	**40703.73**
								Sqm	
	Basic Rate		2739.00						
	A W @ 8%		219.12						
	Total		**2958.12**						

17 Providing and finishing external walls in two coats with primer water proof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete. with primer (P-118, I.No. 15.53.2)

	Lime rendering Qty						59.91		
						Total	59.91	**110.16**	**6599.69**
								Sqm	
	Basic Rate		102.00						
	A W @ 8%		8.16						
	Total		**110.16**						

18 Providing textured paint of approved quality, colour and shade to wall surface after cleaning and rubbing the wall surface with wire brush of medium size emery stone to remove all the loosely adhering particles, the surface is then cleaned with water and ensured that it is in line and level. The textured material is then mixed with 40-50% of clean water until a homogeneous thick slurry is formed, the slurry is left for 5-10 min, to react completely with ingredients. The textured finish prepared as above is then applied to the wall surface with suitable roller/spray gun/putty/ blade/ trowel to get the desired finish. The finished surface shall be applied with two coats of exterior paint of approved shade. The rate includes providing and removing scaffolding, all lead and lift and all other incidental charges etc., complete as per directions of the Engineer-in-charge o f the work . (PWD -SZB-SR 2016-17, P-125, I-15.105)

	For External walls								
						Total	49.91	**474.12**	**23663.33**
								Sqm	
	Basic Rate		439.00						
	A W @ 8%		35.12						
	Total		**474.12**						

19 Providing and fixing in position MS grill work for windows & ventilators weighing 21 kg/Sqm using MS flats or MS square rods or combination of MS flats & square rods as per design drawing including cutting steel sections welding the same to required pattern with a coat of red lead primer, including cost of materials, fixtures, labhour charges and HOM of machineries complete(P.No.32,I.No.7.9).

	Windows	1	1	1.50	1.20		1.80		
							1.80		
					1.80	21	37.80	**102.60**	**3878.28**
								Kgs	
	Basic Rate		95.00						
	A W @ 8%		7.60						

	Total		**102.60**						
20	SOLID PVC DOOR FRAME : Providing and fixing factory made PVC door frame of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet metered cut at corners and jointed 2 nos. of 150 mm long brackets of 15mm x 15mm MS square tube the entire door frame to be reinforced with 19mm x 19mm gauge. The frame to be fixed to the wall using MS screws of 65/80 mm size complete.(P.No.57,I.No.9.84)								
	Doors	1	1	6.00			6.00		
						Total	6.00	**505.44**	**3032.64**
	Basic Rate		468.00					**rmtr**	
	A W @ 8%		37.44						
	Total		**505.44**						
21	SOLID PANEL PVC DOOR SHUTTER : Providing and fixing 30mm factory made rigid foam panelled door shutter made of MS tube of 19 gauge thickness size 19mm x 19mm from styles and 15mm x 15mm for top and bottome rails, covered with heat moulded PVC channel of 5mm thick sheet and 30mm x 50mm wide to form styles and 5mm thick 75mm wide PVC sheets for top rails, lock rails and bottom rails, on either side and 5mm thick 20mm wide PVC sheet as gap inset for top rails and bottom rails panelling of 5mm thick PVC sheet fitted in the MS frame, seales to the styles and rails with 5 x 30mm PVC sheet beading on either side and joined together with solvent cement adhesive etc., complete as per manufactures specifications and directions as per engineer-in-charge fixed to frames with 3 nos of 75mm aluminium hinge.With both side prelam.(P.No.58,I.No.9.85).								
		1	1	0.90		2.10	1.89		
						Total	1.89	**4045.68**	**7646.34**
	Basic Rate		3746.00					**Sqm**	
	A W @ 8%		299.68						
	Total		**4045.68**						
22	KSRB 7.12 : Providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using four track window frame of size 122.2x31.75mm. for bottom section 1.1mm thick, weight 1.205 kg/m; sides and top sections 1.2 mm. thick weight 1.093 kg/m; shutter section comprising top and bottom section of size 40mmx18mm wall thickness 1.25mm. weight 0.417 kg./m, shutter sideouter 40mmx18mm. wall thickness 1.25mm. weight 0.417 kg/m, shutter interlock section 40mmx26.7mm wall thickness 1.1 mm. weight 0.469 kg/m; shutters mounted on nylon rollers with approved quality of fixtures such as aluminium handles, tower bolts etc.; providing and fixing 5.5mm. thick plain glass for shutters fitted with rubber beading including cutting to required length, joints mitred subdividing the frame, tenonned and rivetted in the assembled frame to be stiffened with end clips at corners, angles etc.; fixed to the walls, lintels, floor beams;cills, as the case may be with necessary steel screws, raul plugs, or teak wood gatties including cutting masonry or concrete and making good the original surface using cement mortar; aluminium sections pretreated for removal of any rust and coated with greasy materials for non adhesion of mortar and other sticky materials; (this coating should be cleaned after installation) including cost of materials, fixtures, labour and HOM of machinery complete as per specifications. using aluminium section anodized to 12 - 15 microns.(P.No.33,I.No.7.12.1).								
	Windows	1	1	1.20	1.50		1.80		
						Total	1.80	**4020.84**	**7237.51**
	Basic Rate		3723.00					**Sqm**	
	A W @ 8%		297.84						
	Total		**4020.84**						
23	Providing and placing on terrace, polyethylene water storage tanks with manhole lid and suitable locking arrangements, making holes of suitable diameter for inlet, outlet and over flow pipes, including cost of all materials, labhour, transport charges, HOM of equipments and testing complete as per specifications.(For 1000 litre capacity).(P.No.94.I.No.13.78).								
		1	1				1.00		
						Total	1.00	**7374.24**	**7374.24**
	Basic Rate		6828.00					**Each**	
	A W @ 8%		546.24						
	Total		**7374.24**						
24	Providing and fixing white vitreous china clay, flat back wash basin size 630x450mm with a pair of 15mm C.P.brass pillar taps with C.I./ M.S brackets, 32mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labhour complete as per specifications.(P.No.80,I.No.12.23)								
		1	1				1.00		
						Total	1.00	**4327.56**	**4327.56**
	Basic Rate		4007.00					**Nos**	

	A W @ 8%	320.56						
	Total	**4327.56**						
25	Providing and fixing 453x357mm rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labhour complete as per specifications.(P.No.82,I.No.12.41)							
		1	1				1.00	
	Basic Rate		1136.00			Total	1.00	**1226.88**
	A W @ 8%		90.88					**Nos**
	Total		**1226.88**					
26	Providing and fixing C.P. brass towel rail 600mm length, 20mm dia with C.P.brackets, fixed to wooden cleats with C.P.brass screws including cost of materials,labhour complete as per specifications.(P.No.83,I.No.12.46).							
		1	1	1.00			1.00	
	Basic Rate		674.00			Total	1.00	**727.92**
	A W @ 8%		53.92					**m**
	Total		**727.92**					
27	Providing and fixing to wall, ceiling and floor high density polyethlene pipes 6.00 kgf/sq.cm working pressure 90mm outside diameter with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labhour charges, HOM of equipments and testing complete as per specifications. (P.No.94,I.No.13.73.4)							
		1	1	50.00			50.00	
	Basic Rate		498.00			Total	50.00	**537.84**
	A W @ 8%		39.84					**m**
	Total		**537.84**					
28	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) 20mm pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, including fixing the pipe and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete(concealed work including cutting chases and good the walls etc, .(P.No.96,I.No.13.86.2)							
		1	1	25.00			25.00	
	Basic Rate		235.00			Total	25.00	**253.80**
	A W @ 8%		18.80					**m**
	Total		**253.80**					
29	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) 25mm pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, including fixing the pipe and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete(concealed work including cutting chases and good the walls etc, .(P.No.96,I.No.13.86.3)							
		1	1	15.00			15.00	
	Basic Rate		293.00			Total	15.00	**316.44**
	A W @ 8%		23.44					**m**
	Total		**316.44**					
30	Providing and fixing in position brass stock cock of approved quality 20mm nominal bore including cost of all materials, labhour and HOM of equipements with all leads complete as per specifications.(P.No.91, I.No.13.27).							
		1	1				1.00	
	Basic Rate		141.00			Total	1.00	**152.28**
	A W @ 8%		11.28					**m**
	Total		**152.28**					
31	Providing stoneware gully trap 15cms x 10cms of approved quality and make fixing in M15 and plastering with CM 1:3 wherever necessary.(Rate includes cost of all material, fixture and lead)(P.No.88,I.No.12.112.2)							
		1	2				2.00	
						Total	2.00	**302.40**
	Basic Rate		280.00					**Nos**
	A W @ 8%		22.40					
	Total		**302.40**					
32	Providing and fixing 7.5cm to 15 cms dia NP grating 100 mm dia.(P.No.88,I.No.12.111)							
		1	1				1.00	
						Total	1.00	**162.00**
	Basic Rate		150.00					**Nos**
	A W @ 8%		12.00					
	Total		**162.00**					

33	Providing and laying in position yelahanka tiles of size 250 x 250mm of approved quality and make, over a bed of cement mortar 1:3 an average thickness 25mm over weather proof course and pointed with cement mortar 1:3 mix with red oxide including curing cost of materials, labour etc., complete .(P.No.66, I.No. 10.1)								
	Roof	1	1	4.80	3.20		15.36		
	Basic Rate		978.00			Total	15.36	**1056.24**	**16223.85**
	A W @ 8%		78.24					**Sqm**	
	Total		**1056.24**						
34	CONCEALED CONDUIT SYSTEM: Supplying ..... mm dia 2mm 2.5mm thick heavy gauge PVC Conduit pipe with suitable size bends, metal/PVC junction boxes adhesive paste etc., and running before concreting the slab. The conduit should be tied to the reinforcement rods by using binding wires and unused ways of junction boxes and pipe ends should be covered using PVC end enclosures run with 18 SWG GI fish wire wherever necessary. (PWD-ele-SR, 2014-15, P-2, Slno-1.2)								
	a) 19/20mm dia 2mm thick					10.00	mtr	40.00	400.00
	b) 25mm dia 2mm thick					8.00	mtr	53.00	424.00
	c) 32mm dia 2mm thick					15.00	mtr	83.00	1,245.00
	d) 40mm dia 2mm thick					20.00	mtr	95.00	1,900.00
35	Supplying and fixing sheet metal box made out of 18 SWG sheet metal with necessary holes for cable/conduit entry as required with one coat of primer of approved makes etc., (PWD-ele-SR, 2014-15, P-2, Slno-1.4)								
	75x75x65mm					3.00	Each	87.00	261.00
	135x75x65mm					2.00	Each	95.00	190.00
36	Supplying and flush mounting teak wooden box without front plant made of not less than 12mm thick wood, after due groove cutting, necessary masonry patch work complete. (PWD-ele-SR, 2014-15, P-3, Slno-1.6)								
	a) 12"x12"x3" (300x228x76mm)					1	Each	102.00	102.00
	b) 12"x9"x3" (300x228x76mm)					2	Each	86.00	172.00
	c) 4"x4"x3" (101x101x76mm)					1	Each	60.00	60.00
	1 to 2 way					3	Each	33.00	99.00
	3 to 4 way					4	Each	40.00	160.00
37	Supplying and fixing PVC/metal conduit Deep junction box (PWD-ele-SR, 2014-15, P-2, Slno-1.5)								
	19/20mm deep junction box					2	Each	43.00	86.00
	25mm deep junction box					3	Each	47.00	141.00
	32mm deep junction box					4	Each	60.00	240.00
38	Extra for groove cutting in brick wall /CC floor' to the suitable depth for con cealing of conduit/GI pipe and plastering,finishing upto wall surface complete (PWD-Ele-SR, 2014-15, P-3, Slno-1.7)								
	upto 50mm conduit in brick wall					25	Mtr	21.00	525.00
39	Suplplying and fixing "S" Hook made out of 14mm dia M.S. rod (PWD-Ele-SR, 2014-15, P-3, Slno-1.10)								
						4	No	34.00	136.00
40	Suplplying and fixing Metal fan box with round hook. (PWD-Ele-SR, 2014-15, P-3, Slno-1.12)								
						1	No	85.00	85.00
41	Point wiring using copper wire with switch: Supplying and wiring adopting loop system in existing PVC Conduit/casing caping using Copper PVC insulated multi strand 2x1.5sqmm copper wire with a 6 Amps flush type SP Control switch shall be fixed on the existing plastic sheet/gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. Complete for each outlet. I Point wiring using class A Materials It No: 2.1 Page No 5								
	a) Short point upto 3Mtrs from tapping point to out let via switch					20	each	200.00	4,000.00
	b) Medium point above 3Mtrs upto 6Mtr from Tapping point to out let via switch					25	each	275.00	6,875.00
42	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multistrand Copper conductor single core cable in open or consealed system of wiring. I Group A (PWD-Ele-SR, 2014-15, P-7, Slno-2.7)								
	a) 1 sqmm					25	mtr	13.00	325.00
	b) 2.5 Sqmm					15	mtr	29.20	438.00
	c) 4.0 sqmm					20	mtr	42.10	842.00
	d) 6.0 sqmm					16	mtr	63.80	1,020.80
43	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal/PVC/ box. (PWD-ele-SR, 2014-15, P-9, Slno-3.5)								

	3.6.1) 1 to 3 module			5	Each	110.00	550.00
	3.6.2) 4 module			6	Each	125.00	750.00
	3.6.3) 6 module			10	Each	175.00	1,750.00
44	Supplying and fixing of T5 Fluorescent Tube with 14W power consumption with low 3mg Mercury content & below 40% glass content than T8 lamp & 20% less phosphor coating than T8 with initial lumen on 1350 (for 3000-6500 deg Kelvin), rated Avg life (12 Hr. Cycle) of greater than 35000 burring hours. Operating voltage range from 180V to 265V, 50Hz AC power Supply It No: 13.18.2 Page No 20						
	b) 28 wats			2	each	158.00	316.00
45	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10K and Complete wiring as required. It No:5.17 Page No 27						
	1) 50-63 Amps SP			1	each	723.00	723.00
	2) 6-32 Amps SP			1	each	434.00	434.00
46	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains,Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have inhouse facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source. (PWD-Ele-SR, 2014-15, P-67, Slno-12.9.2) 100W 19-20						
	outside			1	Each	7,500.00	7,500.00
47	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches regulators etc., and fixing on existing wooden or metal box using N.F.Screws. It No: XI ~~Page No 128~~ Item no. 128						
				1,000.00	Sqcm	0.16	160.00
48	Supplying capacitor type ceiling fan complete with dawn rod blades, shackle, canopies etc., for operation on 230 Volts, 50 Cycles, Single Phase AC Supply conforming to ISS-374-1979 and with double ball bearing system and as per technical data approved. 1 48" Sweep (1200 mm) It No: 7.3 Page No 46						
	a) Regular model			1.00	Sqcm	2,090.00	2,090.00
49	Supplying and fixing of modular switch/Socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate.I. Using Group "B" materials It No: 3.7.16 Page No 160						
	3.7.16) Stepped Fan Regulator			1.00	each	290.00	290.00
	3.7.11) TV/Telephone socket			2.00	each	79.00	158.00
	3.7.12) RJ45/I.O. outlet			3.00	each	195.00	585.00
50	Fixing a Ceiling/Wall mounting fan of all capacities and all types to the existing S hook with fan regulator to the existing board together with supplying and fixing a 5 ampers ceiling rose, necessary length of 23/0.0076 inch PVC insulated twin twisted copper wire and wiring completely. I.No 14.8 Pg. No 80						
				1.00	each	150.00	150.00
51	Supplying and fixing Moulded Cases Cicuit Breaker (MCCB) over the existing wood/panel/ board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947.(Icu = Ics) (PWD-Ele-SR, 2014-15, P-26, Slno-5.14)						
	6.13.1) 100Amps 25kA.			1.00	Each	4,530.00	4,530.00
	6.13.4) 250Amps 35kA.			1.00	Each	15,350.00	15,350.00
52	Supplying, fixing wiring earth electrode for gounding conduits, I.C.Cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI 2.5 mtr long buried in a pit... the pit should be filled with equal proportion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the pipe to the conduit etc, is to be established through GI wire of size as oer ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 12 mm dia.P.No 40 I.No 6.1			2	no	2,999.70	5,999.40

53	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanized, steel wire/steel tap armoured cable with PVC outer sheathing 1.1KV Class I. Class 'A' PVC Cable - It No 6.4 Page - 40								
	d) 4 core 16sqmm					20	mts	150.00	3,000.00
54	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stoneware pipe/ on wall/ on pole as required. I. In existing trench /duct. It No 6.5 Page - 41								
	a) 6sqmm to 16 sqmm					20	mts	11.80	236.00
55	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete. (As per Civil SR KSRB 1-2, P-7) It No 6.6 Page - 41								
	a) Asphalt cutting.					15	mts	113.00	1,695.00
56	Geophysical investigation of site for sinking borewell for supply drinking water to the habitation either through the hand pump M.W.S or P.W.S.S by vertical electrical sounding by adopting venner or schlumberger's method including reconnaissance survey of geological formation Geophysical investigation of existing ground water infecundity its quality, quantity & acceptability of the user indicating the location of site recommended depth of casting pipe required to seal the top in consolidated formation including an extra depth of 1.00 Mtr in consolidated formation of proper scatting of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation technical personal and labour etc.,(PRE Circle SR 2010-11 P-37 and 38 I-9.4)								
		1				1.00			
						1.00	**No**	**3768.00**	**3768.00**
	Basic rate		3768						
57	Sinking borewell of 165mm dia clear using super fast hydraulic Rig of capacity 250 PSIG and above 900 CFM & above in all Strata including over burden upto 20 mtrs fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of Rig and Supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding cost of casin pipes, collars and cap, etc.,)(P.36 I No-9.1) PRED SR 2012-2013)								
	0.00 to 50.00 mtrs	**1**	**50**			**50.00**	Rmtr	**347.00**	**17350**
	50.00 to 100.00 mtrs	**1**	**50**			**50.00**	Rmtr	**442.00**	**22100**
	100.00 to 150.00 mtrs	**1**	**50**			**50.00**	Rmtr	**456.00**	**22800**
	150.00 to 200.00 mtrs	**1**	**50**			**50.00**	Rmtr	**536.00**	**26800**
	200.00 to 250.00 mtrs	**1**	**50**			**50.00**	Rmtr	**634.00**	**31700**
	250.00 to 300.00 mtrs	**1**	**50**			**50.00**	Rmtr	**700.00**	**35000**
	300.00 to 350.00 mtrs	**1**	**50**			**50.00**	Rmtr	**825.00**	**41250**
	350.00 and Above	**1**	**50**			**50.00**	Rmtr	**900.00**	**45000**
58	Supply of ISI mark 175 mm nominal bore plain end steel casing pipe grade of steel Fe 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments electric resistance welded steel tube material and conformming to IS 1387/1993 and manufactured by basic open hearth electric or basic oxygen preocess in random length of 54 to 7 mts both ends threaded conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be reasonably free from defects. The tubes shall be reasonably straight should be ISI marking weighing 25.10 kg/m (Inclusssive of all taxes and duties). Prices incluide collar-medium duty (Material component P No-II/84)								
		1	30.00			**30.00**			
						30.00	**m**	**1325.00**	**39750.00**
59	Supplying of 175 mm MS cap(Mat-P-NoII/85)								
		1	1.00			**1.00**	each		
						1.00		**100.00**	**100.00**
60	Supplying of 175 mm MS collars (Mat-P-NoII/86)								
		1	3.00			**3.00**	each	**150.00**	**450.00**
61	Providing and fixing PVC pipe 250 mm dia 6 kg/sqm BWSSB 2008-2009 (P-45 I-11)								
		1	6.00			**6.00**	rmtr	**2600.00**	**15600.00**

62	Atalanta suguna CRI KIRLOSKAR and other equipments pumps 10.00 HP/7.5 KV (20 stage) (Pg No. XLI. Sl.no.29) KPWD SR-2018-19							
		1			1.00	Set	49955.00	49955.00
63	Supplying and drawing 3 core flat PVC sheathed submersible pump cable maufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 to IS 8130-1984 and virgin grade PVC insulation and power coating extruded PVC sheathed suitable for working voltage upto 1100 volts with specified IS 694:1990 and confirming to the attwached GTP of group A 3CX4.0 sq.mm (PWD Ele SR 2014-15,P-12/It-2.10.3)							
		1	300.00		300.00	mtr	126.70	38010.00
64	Providing and fixing in position 50mm Nominal bore non-return valve vertical type of approved make including cost of all materials,labour and HOM of equipment with all leads complete as per specifications.(PWD SR 18-19,P-95/It no.13.62)							
		1			1.00	Each	1345.14	1345.14
	Basic rate	1269						
	A.W @ 6%	76.14						
	Total	1345.14						
65	Providing and fixing in trenches galvinised/mild steel tube 50mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for seperately) including cost of all materials, labour charges,HOM of equipment and testing complete as per specifications. Specification No. KBS 13.2.14/13.6 (page no.92/It no.13.15)KPWD SR 2018-19.							
		1			1.00	Each	411.28	411.28
	Basic rate	388						
	A.W @ 6%	23.28						
	Total	411.28						
66	Supplying and fixing miniature circuit breakers on existing MCB distribution board using necessary fixing materials and 'C' type curve indicator ON/OFF energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.(PWD Ele SR 2019-20,P-47/Sl no.6.16.6) 40-63 Amps							
		1			1.00	Each	1936.00	1936.00
67	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cotouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia (PWD Ele SR 2019-20,p-40,Sl no.6.1)							
		1			1.00	Each	2999.70	2999.70
68	Supplying and fixing miniature circuit breakers on existing MCB distribution board using necessary fixing materials and 'C' type curve indicator ON/OFF energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.(PWD Ele SR 2019-20,P-47/Sl no.6.16.6) 40-63 Amps							
		1			1.00	Each	1936.00	1936.00
69	Supplying of TPST with rewirable porcelain channels in SM encloser made out of 14 SWG powder coated point of approved colour 32 amps (PWD Ele SR 2019-20,P-24,It-5.5.1)							
		1			1.00	Each	1800.00	1800.00
70	Supplying and fixing LED type panel board indicating lamp with required colour suitable for 220 V AC 50 HZ 12/24 V DC(PWD Ele SR 2019-20,p-29,Sl no.5.38)							
		1			1.00	Each	430.00	430.00
71	KSRB13-6.2-1 : Providing and fixing in position brass stop cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.2 / 13.3 (Pg No:-93/I.No:-13.26 of KPWD SR 2018-19 2018-19)							
		1			1.00	Each	149.46	149.46
	Basic rate	141						
	A.W @ 6%	8.46						
	Total	149.46						

72	Servicing the installation by applying to the concerened BESCOm authorities including fixing of energy meters as per the procedure of Becom (3 MMD charges payable to BESCOm for sanction of 3 phase power supply (QTY= 1*1)							
		1				**1.00**	Nos	**12500.00**	**12500.00**
							Sub Total Amount Rs:	**1113919.00**

Certificate:

1. *The work spot has been inspected and found to be necessary*
2. *The work spot comes under BBMP Limits*
3. *The provisions made in the estimate are necessary and minimum*
4. *The estimate is based on BCSR of 2019-20 and Electric SR 2019-20*
5. *This work is not split up.*

Assistant Engineer
Ward no 17

Assistant Executive Engineer
Yashanthapura Subdivision

Executive Engineer
Raja Rajeshwari Division

BRUHAT BANGALORE MAHANAGARA PALIKE

Est : 02 : **Name of Work: Redesign and Upgrading of Existing Musicle fountain Interfaced With Multimedia based laser And Video Projection on Aqua Screen At J.P Park Ward No 17 Under package -2019-20 RRN-DIV-(08). Annexure-2 Sl No.754**

Sl No	Description of work	No	Dimensions L	B	D	Qty	Rate	Amount
	New Pond							
1	KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete,-wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.KSRRB M200-12.3. -d o -.prestressed/Reinforced cement concrete grade M-20 above.(P.No.139, I.No.18.19)							
	Existing Pond	2	45.00	0.30	0.90	24.30		
		2	10.00	0.30	0.90	5.40		
		1	45.00	10.00	0.25	112.50		
	Basic Rate	1589.00			Total	142.20	**1716.12**	**244032.26**
	AW@ 8%	127.12						
	Total	**1716.12**						
2	Earth work in surface excavation in ordinary soil for levelling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.50m. excavated surface levelled and neatly dressed , disposed earth to be levelled after breaking of clods and neatly dressed as per specifications.(P.No.5, I.No.2.1)							
	New Pound	1	45.00	11.00	2.00	990.00		
	Basic Rate	249.00			Total	990.00	**268.92**	**266230.80**
	AW@ 8%	19.92						
	Total	**268.92**						
3	Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.140)							
	Qty Vide Item No:1					142.20		
	Qty Vide Item No:2					990.00		
					Total Qty	**1132.20**		
						1132.20	**95.40**	**108011.88**
	Average Weight of Earth (1.28 Tonne/Km, Basic rate Rs.2.50 Tonne Km.) For 15 Kms = (2.00x1.28x15)/-					**38.40**	**Cum**	
	KSRRB M100-1 Add loading & unloading (P.No.134,I.No.17.1)					**57.00**		
					Total rate per Cum	**95.40**		

Executive Engineer, BBMP,

4	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision.P.No 153 I.No 20.5							
	New Pound	1	45.00	11.00	0.45	222.75		
	Basic Rate	1882.00			Total	222.75	**2032.56**	**452752.74**
	A W @ 8%	150.56						
	Total	**2032.56**						
5	Providing and Filling in foundation with granite/trap broken metal 100mm. And down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labhour with all lead and lift, complete as per specifications.(P.No.7,I.No.2.15)							
	New Pound	1	45.00	11.00	0.20	99.00		
	Basic Rate	2429.00			Total	99.00	**2623.32**	**259708.68**
	A W @ 8%	194.32						
	Total	**2623.32**						
6	KSRB-3.2: Providing and injecting chemical emulsion for Pre- constructional Anti-Termite Treatment, creating continuous chemical barrier under and around the column pits, walls, trenches, basement excavation, top surface of the plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits, with chloropyriphos emulsifiable concentrates of 20% concentration, including cost of chemical, diluting in water to one percent concentration, labour, HOM of equipments, complete as per specifications. (Plinth area of the building at ground floor only shall be measured) Specification No. KBS : 3.2.6 / 3.2.7 (P.No.8,I.No.3.2)							
	New Pound	1	45.00	11.00		495.00		
	Basic Rate	106.00			Total	495.00	**114.48**	**56667.60**
	A W @ 8%	8.48					**Cum**	
	Total	**114.48**						
7	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum machine mixed, concrete laid in layers not exceeding 15cms thick well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete (P.No.12 I.No.4.2)							
	New Pound	1	45.00	11.00	0.20	99.00		
	Basic Rate	5438.07			Total	99.00	**5873.11**	**581438.23**
	A W @ 8%	435.05						
	Total	**5873.11**						
8	Providing and laying cement concrete using 20mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete for RCC works laid in 15 cm thick layers and well compacted including vibrating curing etc., with all lead and lift etc., complete. (exculsive of cost of steel and fabrication charges) - Ready mixed Cement concrete for Beams, Staircase and Roof with M-30(P.No.18 I.No.4.49.3)							
	New Pound	1	45.00	11.00	0.23	113.85		
	Wall	2	45.00	0.30	0.90	24.30		
		2	11.00	0.30	0.90	5.94		

	Basic Rate	5997.38			Total	144.09	**6477.17**	**933296.11**
	A W @ 8%	479.79						
	Total	**6477.17**						
9	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500 (P.No.18 I.No.4.46.2)							
	Raft and Walls	140Kg/Cum	144.09	0.140		20.17		
	Basic Rate	78007.00			Total	20.17	**84247.56**	**1699492.33**
	A W @ 8%	6240.56						
	Total	**84247.56**						
10	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for **vertical surface** such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2(P.No.15,I.No.4.30)							
	Walls	4	45.00		0.90	162.00		
		4	11.00		0.90	39.60		
	Basic Rate	440.00			Total	201.60	**475.20**	**95800.32**
	A W @ 8%	35.20						
	Total	**475.20**						
11	KSRB15-5.1 : Providing rough cement plastering 15mm thick in single coat with cement mortar 1:4, to brick masonry for base of dadooing works with sand of approved quality, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. (P.No. 113, I.No. 15.30 of PWD SR 2015-16)							
	Bottom Raft	1	45.00	11.00		495.00		
	Walls	2	45.00		0.9	81.00		
		2	11.00		0.9	19.80		
	Basic Rate	211.93			Total	595.80	**228.89**	**136371.74**
	A W @ 8%	16.95						
	Total	**228.89**						
12	KSRB15-4.4 Extra for providing and mixing waterproofing compound in cement plaster work at one kg per bag or in the proportion recommended by the manufacturers, forcement mortar 1:4, 18mm thick cost of materials complete as per specifications.(P.No.114, I.No.15.26).							
	Bottom Raft	1	45.00	11.00		495.00		
	Walls	2	45.00		0.90	81.00		
		2	11.00		0.90	19.80		
					Total	595.80	**9.72**	**5791.18**
	Basic Rate	9.00						
	A W @ 8%	0.72						
	Total	**9.72**						
13	KSRB 14-17.2 : Providing skirting, dado, rises of steps with colour glazed tiles on 10mm thick cement plaster 1:3 and jointed with white cement slurry over rough plaster surface (excluding cost of rough plastered surface which should be measured and paid separately) using glazed tiles of approved make and size including cost of materials, labour, complete as per specifications. Specification No.KBS 14.16, 14.17 - Colour glazed tiles 15x15 cms 6mm thick(P.No.106, I.No.14.41.1)							
	Bottom Raft	1	45.00	11.00		495.00		

	Walls	2	45.00		0.90	81.00		
		2	11.00		0.90	19.80		
	Top	2	45.00	0.3		27.00		
		2	11.00	0.3		6.60		
					Total	629.40	**1372.68**	**863964.79**
	Basic Rate	1271.00						
	A W @ 8%	101.68						
	Total	**1372.68**						
14	KSRB 10-3 : Providing and laying integral cement based waterproofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc., consisting of following application. (a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound conforming to IS:2645 over the RCC slab after cleaning the surface before treatment. (b) Laying cement concrete using broken brick bats 25mm to 100mm size with 50% of cement mortar 1:5 admixed with proprietary water proofing compound conforming IS:2645 over 20mm thick layer of cement mortar 1:5 admixed with proprietary water proofing compound to required slope and treating similarly the adjoining walls upto 300mm height including rounding off junctions of walls and slabs. (c) After two days of proper curing, applying a second coat of cement lurry admixed with proprietary water proofing compound (d) Finishing the surface with 20mm thick jointless cement mortar of mix 1:4 admixed with proprietary water proofing compound and finally finishing the surface with trowel and neat cement slurry and making of 300x300mm square. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test including cost of materials, labour complete as per specifications. (P.No. 66, I.No. 10.2 of PWD SR 2015-16)							
		1	45.00	11.00		495.00		
		2	11.00	0.90		19.80		
		2	45.00	0.90		81.00		
					Total	595.80	**1086.48**	**647324.78**
	Basic Rate	1006.00						
	A W @ 8%	80.48						
	Total	**1086.48**						
15	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick for flooring conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification. (P.No. 109, I.No. 14.62 of PWD SR 2015-16)							
	Concrete Deck	2	45.00	2.00		180.00		
		2	11.00	2.00		44.00		
						224.00		
	Wastage 5%					11.20		
					Total	235.20	**1330.56**	**312947.71**
	Basic Rate	1232.00						
	A W @ 8%	98.56						
	Total	**1330.56**						

Executive Engineer, BBMP,

16	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over oltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm.Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with inimized minimal tools. LED Light fixture with .....W System Power consumption. LED fficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have inhouse facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source. (P.67 I.No.12.9.7) Electrical SR 14-15							
	LED Floodlight 240W	4				4.00		
	Basic Rate	18400.00			Total	4.00	**18400.00**	**73600.00**
17	Miscellenoius							**456.17**
							Total Cost	**6737887.32**

Certificate:

1. The work spot has been inspected and found to be necessary
2. The work spot comes under BBMP Limits
3. The provisions made in the estimate are necessary and minimum
4. The estimate is based on BCSR of 2019-20 and Electric SR 2019-20
5. This work is not split up.

Assistant Engineer
Ward no 17

Assistant Executive Engineer
Yashanthapura Subdivision

Executive Engineer
Raja Rajeshwari Division

BRUHATH BANGALORE MAHANAGARA PALIKE

	Est : 01 :	Name of Work: Redesign and Upgrading of Existing Musicle fountain Interfaced With Multimedia based laser And Video Projection on Aqua Screen At J.P Park Ward No 17 Under package -2019-20 RRN-DIV-(08). Annexure-2 Sl No.754				
Sl	Description of Items	Make	Quantity	Unit	Unit Rate	Total Amount
1	**Musical Fountain Proposal:**					
a	SITC of Ultrafast Action Jet, in linear array, made of brass/Noryl construction with a maximum jet height of 10m.	Premierworld/Waterworks/Wet Design	49	Nos	22308.00	1093092.00
b	SITC of Centre Jet, in brass/Noryl construction, with a jet height of 9m.	Premierworld/Waterworks/Wet Design	1	Nos	14300.00	14300.00
c	SITC of Straight jet made of brass/Noryl construction @ 1.6 m PCD with a jet height of 6m	Premierworld/Waterworks/Wet Design	6	Nos	15730.00	94380.00
d	SITC of Sunburst jet, with aluminium header, each having 15 nos brass /noryl construction with a jet height of 5m.	Premierworld/Waterworks/Wet Design	1	Nos	71500.00	71500.00
e	2D + Fan Swing Jet	Premierworld/Waterworks/Wet Design	8	Nos	278850.00	2230800.00
f	Inside Drop (1.6 m dia) with brass/noryl construction jet height 4m	Premierworld/Waterworks/Wet Design	2	Nos	42900.00	85800.00
g	Outside Drop (1.6 m dia) with brass/noryl construction jet height 2.5m	Premierworld/Waterworks/Wet Design	2	nos	57200.00	114400.00
h	Single Oscillating made aluminium fountain head,SSArm,brass/noryl construction nozzle jet height 5m	Premierworld/Waterworks/Wet Design	2	nos	10010.00	20020.00
i	Dancing Peacock with aluminium fountain head,brass/noryl construction nozzle,SS Arm	Premierworld/Waterworks/Wet Design	4	nos	11440.00	45760.00
j	SITC of 2D Swing Jet, in SS construction, with a maximum jet height of 7m.	Premierworld/Waterworks/Wet Design	8	Nos	260260.00	2082080.00
k	Arch Jet made of brass/noryl construction with a jet height 7m	Premierworld/Waterworks/Wet Design	2	Nos	20020.00	40040.00
l	Water Screen nozzle,capable of forming a water screen of size 9 m x 27 m.	Premierworld/Waterworks/Wet Design	1	Nos	586300.00	586300.00
1.2	**Supplying of manifold**				0.00	
a	GI manifold, feeder pipework etcfor jets.	Make: Jindal / Bansal / Equivalent	1	lot	286000.00	286000.00
b	Galvanised manifold with necessary support stands, for Water Screen	Make: Jindal / Bansal / Equivalent	1	Nos	114400.00	114400.00
1.3	**Supplying and fixing of submersible pumps :**				0.00	
a	Borewell pump, 25 hp with SS mesh for pit cover.	KSB / TEXMO / Super / Equivalent	2	Nos	193050.00	386100.00
b	Borewell pump, 10 hp with SS mesh for pit cover.	KSB / TEXMO / Super / Equivalent	5	Nos	102960.00	514800.00
c	Borewell pump, 6 hp with SS mesh for pit cover.	KSB / TEXMO / Super / Equivalent	2	Nos	90090.00	180180.00
d	Bore well pump, 2 hp	KSB / TEXMO / Super / Equivalent	8	nos	47190.00	377520.00
					0.00	
1.4	**Solenoid Valve:** Fast acting solenoid valve of SS construction with 24 volt DC coil.	Premierworld/Waterworks/Wet Design	87	Nos	22308.00	1940796.00
1.5	**Supply of gate valves, butterfly valves, check valves:**				0.00	
a	CI butterfly valve	Leader/L&T/Zoloto	1	lot	12870.00	12870.00
b	CI check valve	Leader/L&T/Zoloto	1	lot	42900.00	42900.00
c	GM gate valves 25 mm,32 mm, 40 mm	HM / Vijay / Zoloto	1	lot	358644.00	358644.00
1.6	**Waterproof LED light, IP 68, Noryl construction:**				0.00	
a	Ring type LED light (RGB) 36 watt	Premierworld/Waterworks/Wet Design	71	Nos	14300.00	1015300.00
b	LED light (RGB), 54 watt	Premierworld/Waterworks/Wet Design	58	nos	17160.00	995280.00
1.8	**Sound System:**				0.00	
a	Speaker 500 watt, Make: JBL AW266 with weather proof enclosure	JBL/Ahuja/Equivalent	6	Nos	128700.00	772200.00

Executive Engineer, BBMP,

b	Subwoofers, 800 watt, Make JBL PRX 418S with weather proof enclosure	JBL/Ahuja/Equivalent	2	Nos	188760.00	377520.00
c	Amplifier 1200 watt RMS, Make: CROWN CTs 1200	Crown/Equivalent	4	Nos	107250.00	429000.00
d	Cross Over	Peavey / equivalent	1	Nos	64350.00	64350.00
e	Audio splitter	Reputed	1	Nos	96525.00	96525.00
g	Audio Mixer	Yamaha/Peavey/Equivalent	1	Nos	64350.00	64350.00
h	Audio cable	Finolex/Polycab/Equivalent	1	lot	171600.00	171600.00
1.9	**Video Projector:** SITC of projector of 20000 lumens	Christie / Panasonic / BARCO	1	Nos	5805800.00	5805800.00
1.1	**Laser:** SITC of 5 watt Laser (RGB) along with Pangolin Beyond Essential.	ABLE / Laser World / LPS / equivalent	1	Nos	1573000.00	1573000.00
1.11	**Control System & software:** Programmed control with **Sunlite** software with valid license and computer with UPS.	Sunlite	1	Nos	715000.00	715000.00
1.12	**Cables**	Finolex / Polycab / Gloster/ Havels			0.00	
a	Flat cable 6 sq.mm x 3 core	Finolex / Polycab / Gloster/ Havels	100	Mtr	343.20	34320.00
c	Flat Cable 2.5 sq.mm x 3 core	Finolex / Polycab / Gloster/ Havels	650	Mtr	139.10	90415.00
e	1.5 sq.mm x 2 core flexible copper	Finolex / Polycab / Gloster/ Havels	3000	Mtr	58.50	175500.00
f	1.5 sq.mm x 4 core flexible copper	Finolex / Polycab / Gloster/ Havels	35000	Mtr	107.90	3776500.00
1.13	**Electrical Control Panel**				0.00	
a	SITC of electrical panel for pumps, including VFD, with necessary starters, MCBs, single phase preventer, ammeter/ voltmeter.	Premierworld/Waterworks/Wet Design	1	Sets	2016300.00	2016300.00
b	SITC of panels for sol valves with necessary transformers, Relay banks/ contactors/ MCBs.	Premierworld/Waterworks/Wet Design	1	set	429000.00	429000.00
c	SITC of panels for LED lights with necessary transformers, Relay banks/ contactors/ MCBs.	Premierworld/Waterworks/Wet Design	1	set	750750.00	750750.00
d	Power Distribution Panel	Premierworld/Waterworks/Wet Design	1	Nos	216983.00	216983.00
1.14	On line Uninterrupted Power supply 5 kVA for Laser & Projector.	Reputed	1	Nos	911625.00	911625.00
1.15	SITC of earth electrodes and earth plates with necessary copper flats.Lightening Arrester	Reputed	2	Sets	268125.00	536250.00
1.16	**Fountain Programming:** Integration of water effects, lights, etc in synchronisation with music 40 - 45 min duration.		1	each	321750.00	321750.00
1.17	**Customised Show in Telegu, 20 min duration (Concept & script will be provided by client)**		2	sets	4842500.00	9685000.00
2.0	**O&M charges for 5 years for running Multimedia Laser Show Integrated with Musical Dancing Fountain and Water Screen at Jaya Prakash Narayana Park, Bangalore**	**5 Years**	1		9011460.00	9011460.00
					Total Cost	**50728460.00**

Certificate:

1. The work spot has been inspected and found to be necessary
2. The work spot comes under BBMP Limits
3. The provisions made in the estimate are necessary and minimum
4. The estimate is based on BCSR of 2019-20 and Electric SR 2019-20
5. This work is not split up.

Assistant Engineer
Ward no 17

Executive Engineer
Raja Rajeshwari Division

Assistant Executive Engineer
Yashanthapura Subdivision

Executive Engineer, BBMP,

BRUHAT BANGALORE MAHANAGARA PALIKE

f Work: Redesign and Upgrading of Existing Musicle fountain Interfaced With Multimedia based nd Video Projection on Aqua Screen At J.P Park Ward No 17 Under package -2019-20 RRN-DIV-(08). Annexure-2 Sl No.754

Description of Item	Unit	No	length	Width	Depth	Quantity	Rate	Amount
			in m	in m	in m		in Rs	in Rs
viding and fixing 304 - grade stainless steel hand rails of 14-gauge pipes for Ramps staircase made out of nless steel hallow pipes, using 50mm dia for verticals @1.60 mtr c/c fixed to the ramps or steps by drilling with ts and 100mm dia MS base plates 10mm gauge for fixing of Vertical pipes 4 - Nos anchor bolts & 40mm dia pipes ed horizontally for 2-rows top, one pipes fixed with vertical pipes another one fixed with elbows and 25mm dia es are fixed horizontally for 2-rows below top measure @ equal intervals including cutting, welding, bending erever necessary with suitable caps @ tops, bottoms & corners finishing with mat / shining etc., complete luding cost and conveyance of all materials, labour for all items of work, HOM with all lead and lift, loading and loading, transportation charges and all other incidental charges etc., complete as per specification and directions the Engineer-in-charge of the work. P.No 45 I.No 7.39(2018-19)								
	Sqm							
PARK PATHWAY RAILS								
om swimming pool gate								
azebo 1		1	36.60		1.50	54.90		
azebo 2		1	121.80		1.50	182.70		
azebo 5		1	33.60		1.50	50.40		
ear Ladies gym		1	45.30		1.50	67.95		
OR BENCHES								
oilet 1		1	20.40		1.20	24.48		
ench		1	7.00		1.20	8.40		
ench near gym area		1	16.20		1.20	19.44		
ench near gym area		1	24.00		1.20	28.80		

t near sand path		2	6.00		1.20	14.40		
						451.47	5700.68	2573686.00
Basic rate	5378.00							
A.W @ 6%	322.68							
Total	5700.68							
Total								2573686.00

TIFICATE

he site has been inspected and the work is found to be necessary.

he estimate is based on KPWD SR of 2019-20 & Issue Rates on 01-07-2020

he provisions were made in this estimate are necessary and adequate.

he area comes under the Bruhat Bengaluru Mahanagara Palike Limits.

Assistant Engineer
Ward no 17

Assistant Executive Engineer
Yashanthapura Subdivision

Executive Engineer
Raja Rajeshwari Division

BRUHATH BANGALORE MAHANAGARA PALIKE

Executive Engineer Rajarajeshwari nagara Division

Name of Work: Redesign and Upgrading of Existing Musicle fountain Interfaced With Multimedia based laser And Video Projection on Aqua Screen At J.P Park Ward No 17 Under package -2019-20 RRN-DIV-(08). Annexure-2 Sl No.754

	Description of work	Dimensions				Qty	Unit	Rate	Amount
		Nos	L	B	D				
	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.								
	(Page No-143, Item No-19.1 KPWD SR 2018-19)								
	Gallery retaining wall	1	119.00	4.90	1.75	1020.43			
	RCC Drain	1	119.00	1.20	1.10	157.08			
						1177.51	**Cum**	**207.60**	**244450.04**
	Basic rate 130.00								
	Area wt 6% 7.80								
	Lead (2*1.28*5)+57 69.80								
	Total Rs 207.60								
	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift, complete as per specifications,								
	(Page No 6 I.No.2.15 of KPWD S.R 2018-19)								
	Gallery retaining wall	1	119.00	4.70	0.21	117.45			
						117.45	**Cum**	**2574.74**	**302410.94**
	Basic rate 2429.00								
	Area wt 6% 145.74								
	Total Rs 2574.74								
	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications.								
	(Page No-13, Item No-4.2 KPWD SR 2018-19)								
	Gallery retaining wall	1	119.00	4.70	0.20	111.86			
						111.86	**Cum**	**5764.35**	**644800.42**
	Basic rate 5438.07								
	Area wt 6% 326.28								
	Total Rs 5764.35								
4	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications.								
	(Page No-16, Item No-4.31 KPWD SR 2018-19)								
	Gallery retaining wall	2	119.00		0.60	142.80			
		2	119.00		4.90	1166.20			
	Supporting column	7	1.20		1.95	16.38			
	Steps	1	119.00		6.40	761.60			
	RCC Drain	4	119.00		0.60	285.60			
						2372.58	**Sqm**	**379.48**	**900346.66**
	Basic rate 358.00								
	Area wt 6% 21.48								
	Total Rs 379.48								
5	Providing and laying cement concrete using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) M20 for R.C.C works laid in 15 cms thick layers and well compacted by vibrating, curing, for foundations & sub-structure works with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) .								
	(Page No-18, Item No-4.49.1 KPWD SR 2018-19)								

Gallery retaining wall		1	119.00	4.90	0.60	349.86			
		1	119.00	0.30	3.15	112.46			
Supporting column		7	0.30	0.30	1.95	1.23			
Steps		1	119.00	0.10	6.40	76.16			
RCC Drain - Raft		1	119.00	0.90	0.15	16.07			
RCC Drain - Wall		2	119.00	0.15	0.60	21.42			
						577.19	**Cum**	**6146.95**	**3547947.97**
Basic rate	5799.01								
Area wt 6%	347.94								
Total Rs	6146.95								
KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. TMT bars Fe 550									
(Page No-18, Item No-4.46.3 KPWD SR 2018-19)									
Gallery retaining wall			577.19			57.72			
100 kg/Cum						**57.72**	**Tn**	**83274.66**	**4806517.61**
Basic rate	78561.00								
Area wt 6%	4713.66								
Total Rs	83274.66								
KSRB 2.6 : Providing and filling dust in foundation upto plinth to required depth for sub soil treatment including watering ramming with all lead and lift complete as per specifications. specification.									
Data rate									
Gallery retaining wall		2	119.00	0.62	0.90	132.80			
						132.80	**Cum**	**1319.43**	**175225.58**
Data rate	1319.43								
Fabrication supplying and erecting M.S. tubular trusses of all spans as per approved drawing & design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall confirm to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire trusses is anchored in RCC column by using 4 nos of M.S. anchor bolts at each support with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S. pipes and welding wherever necessary and applying one coat of redoxide primer coat to all the members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, letc., complete as per specification									
(Page No. 43 Item No. 7.29 of KPWD SR 2018-19)									
Vertical pole 100mm 10mm thk Dia 22.20Kg/m		30	3	22.20		1998.00			
Sqare 40*40 5mm thk dia 5.49kg/m		7	119.00	5.49		4573.17			
Struct 100*100 8mm 23.11kg/m		30	2.2	23.11		1525.26			
						8096.43	**Kgs**	**117.66**	**952625.95**
Basic rate	111.00								
Area wt 6%	6.66								
Total Rs	117.66								
9 TENSILE ROOFING									
Data rate									
Roof Gallery		1	119.00	7.30		868.70			
						868.70	**Sqm**	**11200.00**	**9729440.00**
Data rate	11200.00								

	Providing and laying pre-cast drain cover slab of 100mm thickness in CM1:3 including cost of all materials,labour,curing, transportation, loading, unloading etc.,as per doirections of the Enineer-in-charge. {Data Rate sheet enclosed}								
		1	119.00	0.90		107.10			
						107.10	**Sqm**	**2337.00**	**250292.70**
	Data rate 2337.00								
	KSRB 7.10 : Providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using double track window frame section of size 61.85x31.75mm. With 1,2mm thick, bottom section weight 0.695 kg/m, sides and top sections 1.3 mm. thick weight 0.659 kg/m; and shutter comprising top and bottom section of size 40mmx18mm, 1.25mm thick 0.417 kg./m; shutter outer side 40mmx18mm, 1.25mm.thick weight 0.417 kg/m, shutter interlock section 40mmx26.7mm, 1.1mm thick, weight 0.469 kg/m. the shutters mounted on nylon rollers with approved quality of fixtures such as aluminium handles tower bolts etc.; and providing and fixing 5.5mm. thick plain glass for shutters fitted with rubber beading aluminium sections including cutting to required length, joints mitred subdividing the frame tenonned and rivetted in the assembled frame stiffened with end clips at corners angles etc., and fixed to the walls, lintels, floor beams/cills as the case may be with necessary steel screws, rawl plugs, or teakc wood gatties including cutting masonry or concrete and making good the original surface using cement mortar, aluminium sections pretreated for removal of any Specification No. KBS--do- using aluminium section powdered coated to a minimum of 60-70 microns with exterior durable pure polyester grade powder of approved quality.								
	(Page No. 35 Item No. 7.10.2 of KPWD SR 2018-19)								
	Windowds	20	1.2		1.20	28.80			
	V	20	0.60		0.30	3.60			
						32.40	**Sqm**	**4637.50**	**150255.00**
	Basic rate 4375.00								
	Area wt 6% 262.50								
	Total Rs 4637.50								
12	KSRB 7.9 : Providing and fixing M.S.grill work for windows and Kg ventilators using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No. KBS 7.12								
	(Page No. 34 Item No. 7.9 of KPWD SR 2018-19)								
						32.40			
	21Kg/Sqm					680.40			
						680.40	**Sqm**	**100.70**	**68516.28**
	Basic rate 95.00								
	Area wt 6% 5.70								
	Total Rs 100.70								
13	KSRB 7.17 : Providing, fabricating, assembling and fixing in position aluminium doors using following aluminium mat finish or glossy finish, outer frame plain section 101,6x44.45mm thickness 3.18mm, section weight 2.404 kg/m, door shutters vertical section 44.62x44.45mm thickness 3.18mm, section weight 1,505kg/m, top section 47.62x44.45mm thickness 3.00mm, section weight 1.426kg/m bottom section 114.3x44.45 thickness 3.18mm, section weight 2.646kg/m, door central section 49.91x44.45mm thickness 3.00mm, section weight 1.495 kg/m glazing clips 19x17.3x11mm thickness 0.9mm section weight 0.124kg/m; aluminium sections cut to length joint metred corners grinded, the shutters pivoted opening arrangement with heavy duty aluminium alloy automatic door closures floor mounted, providing and fixing standard approved accessories, such as aluminium handle for full width or length, tower bolts, lock, pivots: P.V.C. or rubber gasket with 5.5m. thick plain glass for top and bottom panel; aluminium sections treated for removal of any rust and prevention of further rust formation, and coated with greasy materials for non-adherance of mortars or any other sticky materials; the assembled frame fitted with the corner angles, strips and'fitted with screws, rawl- plugs or teakwood gutties to R.C.C. columns or masonry on sides, beams and flooring in bottom, including cutting, chistling and making good with cement mortar to match the surface; all the frames throughly cleaned free from rust, scale, or dirt including cost of materials, fixtures, labour and HOM complete as per specifications.-do- using aluminium section powdered coated to a minimum of 60-70 microns with exterior durable pure polyester grade powder of approved quality								
	(Page No. 38 Item No. 7.17.2 of KPWD SR 2018-19)								

Doors		20	0.9		2.10	37.80			
Basic rate	6220.00					**37.80**	**Sqm**	**6593.20**	**249222.96**
Area wt 6%	373.20								
Total Rs	6593.20								
Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thickcement mortar for flooring, skirting and jointed with neat cement slurrymixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals,mortar, labour, etc., Complete as per specification									
(Page No. 108 Item No. 14.45.2 of KPWD SR 2018-19)									
Tiles		1	100		3.60	360.00			
Basic rate	1137.00					**360.00**	**Sqm**	**1205.22**	**433879.20**
Area wt 6%	68.22								
Total Rs	1205.22								
								Sub Total Rs.	**22455931.31**

Certified that The work spot has been inspected by me and the work is necessary & site condition
Certified that the work is not split
Certified that the estimate is based on PW,P&IWTD South Zone Bangalore SR of 2018-19
Certified that Adeqate & necessary provisions have made in the estimate.
Certified that the above area comes under BBMP limit

Asst Engineer
Ward-17
B.B.M.P

Asst. Exe. Engineer
Yashwanthapura Sub Division
B.B.M.P

Executive Engineer
Rajarajeshwari nagara Division
B.B.M.P

Cement Rate upto 21-10-2019					Unit	Rate	Reference	
Cement Rate As on 01-01-2021 (Issue rate)					Per Bag	245.31	Page no V- Sl no 123	
					Per Bag	300.78	PWD 4th quarter issue ra	
Difference in cement cost								
					Per Bag	55.47		
	Item	Sl no	Unit	Rate	Cement consumption		Diifrence	New Rate
l No					In KG	in Bag	Cement	As per new
	PCC							
1	PCC 1:2:4	4.1	Cum	5283.00	240	4.8	266.26	**5549.26**
2	PCC 1:3:6	4.2	Cum	5194.00	220	4.4	244.07	**5438.07**
3	PCC 1:3:6	4.3	Cum	5102.00	180	3.6	199.69	**5301.69**
4	PCC 1:3:6	4.4	Cum	5015.00	160	3.2	177.50	**5192.50**
5	PCC 1: 2:4 @ 300	4.5	Cum	5328.00	280	5.6	310.63	**5638.63**
6	PCC 1: 2:4 @ 240	4.6	Cum	5422.00	240	4.8	266.26	**5688.26**
NEW	PCC 1:4:8	4.3	Cum	5102.00	180	3.6	199.69	**5301.69**
	PCC 1:4:8	27.18	Cum	5115.00	220	4.4	244.07	**5359.07**
	RCC							
1	RCC M25 with OPC 340 Kg footing	4.10	Cum	5812.00	340	6.8	377.20	**6189.20**
2	RCC M20 with OPC 320 Kg footing	4.11	Cum	5659.00	320	6.4	355.01	**6014.01**
3	RCC M25 with OPC 340 Kg Roof slab	4.12	Cum	6045.00	340	6.8	377.20	**6422.20**
4	RCC M20 with OPC 320 Kg Roof slab	4.13	Cum	5892.00	320	6.4	355.01	**6247.01**
5	RCC M20 for Chajja	4.19	Sqmt	440.00	24	0.48	26.63	**466.63**
6	RCC M25 with OPC 340 Kg Roof slab	28.7.3	Cum	5321.00	340	6.8	377.20	**5698.20**
7	RMC M20	4.49.1	Cum	5444.00	320	6.4	355.01	**5799.01**
8	RMC M25	4.49.2	Cum	5497.00	340	6.8	377.20	**5874.20**
9	RMC M30	4.49.3	Cum	5598.00	360	7.2	399.38	**5997.38**
10	RMC M35	4.49.4	Cum	5804.00	390	7.8	432.67	**6236.67**
11	RMC M40	4.49.5	Cum	6009.00	420	8.4	465.95	**6474.95**
12	RCC Loft	4.56	Sqm	420.00	30	0.6	33.28	**453.28**
12	500mm dia. Piles -M30	25.2.2	Cum	7737.00	360	7.2	399.38	**8136.38**
13	Reinforced Concrete in Pile Cap-M30	25.22	Cum	5670.00	360	7.2	399.38	6069.384
	Stone Work							
1	SSm @ basement	5.9	Cum	5483.00	82.5	1.65	91.53	**5574.53**
2	SSm in Super Structure in C M 1:6	5.12	Cum	5784.00	70	1.4	77.66	**5861.66**
3	SSm in Super Structure in C M 1:4	5.13	Cum	6005.00	106.4	2.128	118.04	**6123.04**
4	SSm in Super Structure in C M 1:8	5.13	Cum	4494.00	62.7	1.254	69.56	**4563.56**
5	Load bearing Solid Block Masonary - 4N /mm2							
	400 x200x 200 mm	5.26.1	Sqm	962.00	7.38	0.1476	8.19	**970.19**
	400 x150x 200 mm	5.26.2	Sqm	962.00	7.38	0.1476	8.19	**970.19**
6	Load bearing Solid Block Masonary - 5N /mm2							
	400 x200x 200 mm	5.26.1	Sqm	912.00	7.38	0.1476	8.19	**920.19**
	400 x150x 200 mm	5.26.2	Sqm	953.00	7.36	0.1472	8.17	**961.17**
7	Non Load bearing 400x 100x200	5.28	Sqm	811.00	4.09	0.0818	4.54	**815.54**
	Brick Work							
1	Brick work - 5.0 Newton/ Sqmm							
	with CM 1:8	6.5	Cum	6600.00	45.6	0.912	50.59	**6650.59**
	with CM 1:6	6.6	Cum	6709.00	60	1.2	66.56	**6775.56**
	with CM 1:4	6.7	Cum	6899.00	91.2	1.824	101.18	**7000.18**
2	Brick work - 7.5 Newton/ Sqmm - wire cut brick							
	with CM 1:8	6.5	Cum	9698.00	45.6	0.912	50.59	9748.58864
	with CM 1:6	6.6	Cum	9785.00	80	1.6	88.75	**9873.75**
	with CM 1:4	6.7	Cum	9975.00	91.2	1.824	101.18	**10076.18**
							0.00	
3	Brick work - 5.0 Newton/ Sqmm -Table mould brick							
	with CM 1:8	6.16	Cum	6805.00	39.9	0.798	44.27	6849.26506
	with CM 1:6	6.17	Cum	6881.00	52.5	1.05	58.24	**6939.24**

	with CM 1:4	6.18	Cum	7047.00	79.8	1.596	88.53	**7135.53**
4	Partation wall in C M 1:4							
	with 3.5 n/mm2	6.23	Sqm	838.00	9.12	0.1824	10.12	848.117728
	with 5.0 n/mm2	6.24	Sqm	920.00	9.12	0.1824	10.12	**930.12**
	Plastering							
1	12 mm thick single coat brick work							
	with CM 1:3							
	with CM 1:4 - ceiling	15.21	Sqm	254.00		0.13	7.21	**261.21**
		15.22	Sqm	225.00		0.098	5.44	**230.44**
2	15 mm thick single coat							
	with CM 1:3	15.12	Sqm	234.00		0.16	8.88	**242.88**
	with CM 1:4	15.13	Sqm	240.00		0.12	6.66	**246.66**
	with CM 1:6	15.14	Sqm	208.00		0.08	4.44	**212.44**
3	18 mm thick single coat							
	with CM 1:3	15.15	Sqm	276.00		0.16	8.88	**284.88**
	with CM 1:4	15.16	Sqm	261.00		0.12	6.66	**267.66**
	with CM 1:6	15.17	Sqm	245.00		0.08	4.44	**249.44**
4	with CM 1:4 concrete	15.16	Sqm	261.00		0.15	8.32	**269.32**
5	15 mm thick Rough coatcoat							
	with CM 1:4	15.30	Sqm	205.00		0.125	6.93	**211.93**
	with CM 1:6	15.31	Sqm	192.00		0.08	4.44	**196.44**
6	20 mm thick single coat							
	with CM 1:3	15.18	Sqm	289.00		0.22	12.20	**301.20**
	with CM 1:4	15.19	Sqm	271.00		0.16	8.88	**279.88**
	Flooring							
1	Flooring fine dressed stone	14.4	Sqm	3241.00		0.165	9.15	**3250.15**
2	Ceramic tiles 30x 30x6 flooring	14.36.2	Sqm	1210.00		0.19	10.54	**1220.54**
3	Ceramic tiles 30x 60x6 - Dodoing	14.41.2	Sqm	1632.00		0.18	9.98	**1641.98**
4	Ceramic tiles 30x 45x6 - Dodoing	14.41.3	Sqm	1275.00		0.18	9.98	**1284.98**
5	Flooring with 25mm thick polished tandur blue stone s	14.15	Sqm	1254.00		0.26	14.42	**1268.42**
6	Flooring with 25mm thick polished tandur blue stone s	14.4	Sqm	1168.00		0.18	9.98	**1177.98**